

REMARKS

Claims 1-23 are currently pending in the application. By this amendment, claims 6 and 10 are amended. These amendments do not add new matter and are fully supported by the original disclosure. For example, support for the amendment is found in the claims as originally filed and at pages 9, 10 and 14 of the specification. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Information Disclosure Statement

The Information Disclosure Statement (IDS) submitted on July 31, 2003, was only partially considered because it did not contain a concise explanation of the relevance of each patent listed that is not in the English language.

Applicants submit herewith English-language abstracts, claims, and/or family members of the documents that were not considered in the IDS submitted July 31, 2003. Applicants respectfully request the Examiner consider these documents and indicate the same by initialing the enclosed PTO-1449 Form.

Objection to Claims

Claim 10 was objected to for being of improper dependent form for failing to further limit the subject matter of a previous claim. This objection is traversed in view of the amendment to claim 10. Claim 10 has been amended to recite two input feeding devices, instead of at least two input feeding devices. This clearly further defines the invention and further limits the subject matter of a previous claim.

Accordingly, Applicants respectfully request that the objection to claim 10 be withdrawn.

35 U.S.C. §112 Rejection

Claim 6 was rejected under 35 U.S.C. §112, 2nd paragraph. This rejection is traversed in view of the amendment to claim 6. Claim 6 has been amended to recite that the single reject output bin is provided in a separate output group from the assigned output group.

Accordingly, Applicants respectfully request that the rejection over claim 6 be withdrawn.

35 U.S.C. §103 Rejection

Claims 1-23 were rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 6,107,588 issued to De Leo et al. ("De Leo"). Claims 1-23 were rejected under 35 U.S.C. §103(a) for being unpatentable over U. S. Patent No. 6,274,836 issued to Walach ("Walach").¹ These rejections are respectfully traversed.

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must

¹ Applicants note that the patent numbers of the De Leo et al. and Walach references are not listed in the Detailed Action. However, in a telephone conversation with Applicants' representative on May 1, 2006, Examiner Miller confirmed that De Leo et al. refers to U.S. Pat. No. 6,107,588 and Walach refers to U.S. Pat. No. 6,274,836.

be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2142.

Claims 1-23 in view of De Leo

Claim 1 in view of De Leo

The instant invention generally relates to a sequencing system and method of use and, more particularly, to a sequencing system using multiple induction points to sequence products and a method of use. By way of non-limiting example, implementations of the invention provide that, during a second pass sort, each of a plurality of input feeding devices feeds product to output bins of a respective assigned output group. Rejected product from any of the input feeding devices may be fed to a common (e.g., accessible by all input feeding devices) reject bin of a single output group. In this manner, implementations of the invention provide improved capacity over systems that contain reject bins in each output group. Claim 1 recites, *inter alia*,

a control system having a mode which constrains the input feeding devices to (i) feeding non-rejected product to output bins of assigned output groups of the plurality of output groups associated with a corresponding one of the plurality of input feeding devices, and (ii) feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

The applied reference does not teach or suggest these features.

The Examiner asserts that De Leo discloses the features of claim 1, except that De Leo "fails to explicitly disclose a rejection bin". Applicants agree that De Leo does

not show a rejection bin. The Examiner, however, takes Official Notice with regard to feeding rejected products to a rejection bin, and asserts that it would have been obvious to modify De Leo by utilizing one or more of the sorting bins as a rejection bin.

Applicants respectfully disagree.

De Leo discloses a method of sorting postal objects. In a first pass, a stream F_i of randomly ordered postal objects 7 is fed to first and second input devices A, B (Fig. 1a; col. 2, lines 25-49). Based upon a portion of a code associated with each object 7, a controller 22 directs the objects to any one of a plurality of output bins U_i . Each bin U_i may correspond to a delivery address R_i along a postal route P (Figs. 1a and 3). After the first pass, a container 20 is removed from each bin U_i in a specified order to create collections C_a and C_b (Fig. 1a; col. 4, lines 30-67). Subsequently, new, empty containers 20 are fitted into each bin U_i . In the second pass, the postal objects of collection C_a are fed to first input device A, and are directed towards a first subset W_a of output bins (Fig. 1b; col. 5, lines 10-31). Also, in the second pass, the postal objects of collection C_b are fed to second input device B, and are directed towards a second subset W_b of output bins. In this manner, the postal objects are disposed in order by delivery address.

De Leo does not teach or suggest a control system that constrains the input feeding devices to feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders, as recited in claim 1. In fact, De Leo makes no mention whatsoever of rejected product, or the handling of rejected product. The Examiner admits as much in paragraph 3 of the outstanding Office Action.

In fact, De Leo appears to teach away from the claimed invention. De Leo is completely silent as to output groups in the first pass phase. De Leo does disclose output groups W_a , W_b in the second pass phase, but explicitly states that postal objects from input A can only be directed toward the bins of output group W_a , and postal objects from input B can only be directed toward the bins of output group W_b (col. 5, lines 15-26). Thus, De Leo teaches directly away from an output bin in a single output group that is accessible to any of the plurality of input feeders, as recited in claim 1.

Moreover, Applicants disagree with the Examiner's taking of Official Notice asserting that this feature is well known and common, and that it would have been obvious to modify De Leo to incorporate this feature. MPEP §2144.03 provides the following guidance regarding Official Notice:

Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

...

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b).

...

If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2).

Applicants hereby traverse the Official Notice with respect to claim 1 for the following reasons. Initially, Applicants note that the Examiner has not even asserted that the recited claim feature is well known and common. Instead, the Examiner has taken Official Notice "with regard to the feeding of rejected products to a rejection bin". However, the mere feeding of rejected products to a rejection bin is not what is recited in claim 1. Thus, as a threshold matter, the Examiner has failed to establish a *prima facie* case of obviousness because the proffered combination of applied references (i.e., De Leo modified in view of Official Notice) fails to teach or suggest every feature of the claimed invention.

In any event, as discussed in the Background section of the instant invention, Applicants are aware of the use of rejection bins *per se*. Reject output bins are typically provided in each output group to ensure faster sequencing of the non-rejected mail pieces. However, Applicants submit that, in a system and method where in a second pass each of a plurality of input feeders is constrained to a respective output group, it is not common knowledge or well known to feed rejected products to at least one output bin of a plurality of output bins in a single group accessible to any of the plurality of input feeders. Applicants' inventive use of one or more reject bins in a single group that is accessible to all of the input feeders overcomes the problem of decreased capacity that is present when each group has its own reject bin(s).

Applicants respectfully request that the Examiner provide documentary evidence supporting the assertion of Official Notice in the next Office Action, or withdraw the rejection. More particularly, Applicants request that the Examiner provide documentary evidence that it is well known and common to feed rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders, as recited in claim 1.

Claim 15 in view of De Leo

Claim 15 recites, *inter alia*,

... feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices.

The applied reference does not teach or suggest these features.

The Examiner asserts that De Leo discloses the features of claim 15, except that De Leo "fails to explicitly disclose in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices". Applicants agree that De Leo does not show this feature. The Examiner takes Official Notice with regard to feeding rejected products to a rejection bin, and asserts that it would have been obvious to modify De Leo by utilizing one or more of the sorting bins as a rejection bin. Applicants respectfully disagree.

De Leo does not teach or suggest feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the

input devices, as recited in claim 15. The Examiner admits as much in paragraph 18 of the outstanding Office Action.

In fact, as discussed above, De Leo teaches away from this feature of the claimed invention. De Leo explicitly discloses that, during the second pass phase, postal objects from input A can only be directed toward the bins of output group W_a , and postal objects from input B can only be directed toward the bins of output group W_b (col. 5, lines 15-26). Thus, De Leo teaches directly away from feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices, as recited in claim 15.

Moreover, Applicants also traverse the Official Notice with respect to claim 15 for the following reasons. Initially, Applicants note that the Examiner has not even asserted that the recited claim feature is well known and common. Instead, the Examiner has taken Official Notice "with regard to the feeding of rejected products to a rejection bin". However, the mere feeding of rejected products to a rejection bin is not what is recited in claim 15. Thus, again as a threshold matter, the Examiner has failed to establish a *prima facie* case of obviousness because the proffered combination of applied references (i.e., De Leo modified in view of Official Notice) fails to teach or suggest every feature of the claimed invention.

In any event, Applicants submit that, while output bins in each output group may be known, the feeding of rejected product to an output bin common and accessible to any of the input devices is not common knowledge or well known in the art, as previously discussed.

Applicants respectfully request that the Examiner provide documentary evidence supporting the assertion of Official Notice in the next Office Action, or withdraw the rejection. More particularly, Applicants request that the Examiner provide documentary evidence that it is well known and common to feed, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices, as recited in claim 15.

Claim 21 in view of De Leo

Claim 21 recites, inter alia,

means for permitting, in the second pass phase,
rejected product of the plurality of product to an output bin
common and accessible to any of the feeding means.

The applied reference does not teach or suggest this feature.

The Examiner asserts that De Leo discloses all of the features of claim 21.² Specifically, the Examiner asserts that De Leo discloses the above-noted feature in "col. 3, lines 10+; col. 5, lines 10+" (see paragraph 24 of the Office Action). Applicants respectfully disagree.

As discussed above, De Leo makes no mention whatsoever of rejected product, or the handling of rejected product. In fact, the Examiner admits that De Leo does not disclose a rejection bin (paragraph 3 of the Office Action), and does not disclose feeding, in a second pass phase, rejected product of the plurality of product to an output

² Applicants note that, while the Examiner has taken "official notice with regards to the feeding rejected products to a rejection bin", the Examiner has failed to assert any modification to De Leo. Instead, the first sentence of Paragraph 24 of the Detailed Action explicitly states that De Leo discloses all of the elements claim 21.

bin common and accessible to any of the input devices (paragraph 18 of the Office Action). Thus, the applied references (i.e., De Leo) do not teach or suggest every feature of the claimed invention.

Moreover, as discussed above, De Leo teaches away from the claimed invention. De Leo explicitly discloses that during the second pass phase postal objects from input A can only be directed toward the bins of output group W_a , and postal objects from input B can only be directed toward the bins of output group W_b (col. 5, lines 15-26). Thus, De Leo teaches directly away from means for permitting, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the feeding means, as recited in claim 21.

Dependent claims 2-14, 16-20, 22 and 23 in view of De Leo

Applicants respectfully submit that claims 2-14, 16-20, 22 and 23 depend from an allowable independent claim, and are allowable by virtue of the allowability of the respective independent claim.

Furthermore, Applicants submit that De Leo does not teach or suggest many of the features of the dependent claims. For example, De Leo does not teach or suggest that rejected product is based on at least one of misreading or non-reading of a code associated with the rejected product, as recited in claims 2 and 16. To the contrary, De Leo makes no mention whatsoever of rejected product. Therefore, it is impossible for De Leo to teach or suggest criteria for rejecting product, such as misreading or non-reading of a code.

Additionally, De Leo does not teach or suggest a commonly accessible output bin, as recited in claims 17 and 19. Instead, as discussed above, De Leo explicitly teaches away from a commonly accessible output bin during the second pass phase.

Accordingly, Applicants respectfully request that the rejection over claims 1-23 in view of De Leo be withdrawn.

Claims 1-23 in view of Walach

Claim 1 in view of Walach

Claim 1 recites, *inter alia*,

a plurality of input feeding devices each randomly receiving product from a stream of product ...

... and (ii) feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders.

The applied reference does not teach or suggest these features.

The Examiner asserts that Walach discloses the features of claim 1, except that Walach “fails to explicitly disclose a rejection bin”. Applicants agree that Walach does not show a rejection bin. The Examiner, however, takes Official Notice with regard to feeding rejected products to a rejection bin, and asserts that it would have been obvious to modify Walach by utilizing one or more of the sorting bins as a rejection bin. Applicants respectfully disagree.

Walach discloses a method and system for object sorting. The system comprises a multi-bin article sorter preferably comprising a plurality of P input bins and a plurality of N output bins (col. 5, lines 37-43). In a first pass, the articles are sorted

into N output groups of articles being placed by the sorter in each of the N output bins thereof. After the first pass, the N output groups are grouped into P input groups. The P input groups are resorted by placing each of the P input groups into a corresponding one of the P input bins. The sorter sorts the P input groups into N new output groups, each of the N new output groups being associated with and fed by one of the P input bins (col. 5, lines 47-63). Walach discloses that, before the first pass, the articles are divided approximately equally between the two input bins (col. 7, lines 8-9).

Contrary to the Examiner's assertions, Walach does not teach or suggest a plurality of input feeding devices each randomly receiving product from a stream of product, as recited in claim 1. Walach does not disclose a stream of product. Moreover, Walach does not disclose that the input bins P randomly receive products from anything, much less from a stream of product. Instead, Walach merely discloses input bins P and a sorter, and that the articles are divided approximately equally between the input bins. This does not, however, constitute randomly receiving products from a stream of product. In fact, this may even teach away from such inventive features of the claimed invention. Specifically, dividing the product equally amongst the feeders by definition cannot be random.

Moreover, Walach additionally appears to teach away from the claimed invention since, during the second pass phase, the sorter is used to sort the P input groups into N new output groups, each of the N new output groups being associated with and fed by exactly one of the P input bins (col. 5, lines 61-62). Thus, Walach teaches directly away from an output bin in a single output group that is accessible to any of the plurality of input feeders, as recited in claim 1.

Furthermore, Walach does not teach or suggest a control system that constrains the input feeding devices to feeding rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders, as recited in claim 1. In fact, Walach makes no mention whatsoever of rejected product, or the handling of rejected product. The Examiner admits as much in paragraph 27 of the outstanding Office Action.

Applicants also traverse the Official Notice with respect to claim 1, and respectfully request that the Examiner provide documentary evidence supporting the assertion of Official Notice in the next Office Action, or withdraw the rejection. More particularly, Applicants request that the Examiner provide documentary evidence that it is well known and common to feed rejected product to at least one output bin of the plurality of output bins in a single group accessible to any of the plurality of input feeders, as recited in claim 1.

Claim 15 in view of Walach

Claim 15 recites, inter alia,

providing a plurality of product from a stream of product to any of a plurality of input devices; ...
... and feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices.

The applied reference does not show these features

The Examiner asserts that Walach discloses the features of claim 15, except that Walach "fails to explicitly disclose in the second pass phase, rejected product of the

plurality of product to an output bin common and accessible to any of the input devices". Applicants agree that Walach does not show this feature. The Examiner takes Official Notice with regard to feeding rejected products to a rejection bin, and asserts that it would have been obvious to modify Walach by utilizing one or more of the sorting bins as a rejection bin. Applicants respectfully disagree.

As discussed previously, contrary to the Examiner's assertions, Walach does not teach or suggest providing a plurality of product from a stream of product to any of a plurality of input devices, as recited in claim 15. Walach does not disclose a stream of product. Moreover, Walach does not disclose the product is provided from a stream to any of a plurality of input devices. Instead, Walach merely discloses input bins P and a sorter, and that the articles are divided approximately equally between the input bins. This does not, however, constitute providing a plurality of product from a stream of product to any of a plurality of input devices.

Moreover, Walach does not teach or suggest feeding, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices, as recited in claim 15. In fact, Walach appears to teach away from this claimed feature. As discussed above, during the second pass phase of Walach, the sorter is used to sort the P input groups into N new output groups, each of the N new output groups being associated with and fed by exactly one of the P input bins (col. 5, lines 61-62). Thus, Walach teaches away from an output bin that is common and accessible to any of the input devices.

Applicants also traverse the Official Notice with respect to claim 15, and respectfully request that the Examiner provide documentary evidence supporting the assertion of Official Notice in the next Office Action, or withdraw the rejection. More particularly, Applicants request that the Examiner provide documentary evidence that it is well known and common to feed, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices, as recited in claim 15.

Claim 21 in view of Walach

Claim 21 recites, *inter alia*,

means for providing a plurality of product from a stream of product ...

... and means for permitting, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the feeding means.

The applied reference does not teach or suggest this feature.

The Examiner asserts that Walach discloses all of the features of claim 21.³ Specifically, the Examiner asserts that Walach discloses the above-noted features in "col. 3, lines 46+; col. 4, lines 10+; col. 5, lines 38+" (see paragraph 47 of the Office Action). Applicants respectfully disagree.

As discussed above, Walach makes no mention whatsoever of rejected product, or the handling of rejected product. In fact, the Examiner admits that Walach does not

³ Applicants note that, while the Examiner has taken "official notice with regards to the feeding rejected products to a rejection bin", the Examiner has failed to assert any modification to Walach. Instead, the first sentence of Paragraph 47 of the Detailed Action explicitly states that Walach discloses all of the elements claim 21.

disclose a rejection bin (paragraph 27 of the Office Action), and does not disclose feeding, in a second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the input devices (paragraph 41 of the Office Action). Thus, the applied references (i.e., Walach) do not teach or suggest every feature of the claimed invention.

Moreover, Walach does not teach or suggest means for providing a plurality of product from a stream of product, as recited in claim 21. Walach simply does not disclose a stream of product. Instead, Walach merely discloses input bins P and a sorter, and that the articles are divided approximately equally between the input bins. This does not, however, constitute means for providing a plurality of product from a stream of product.

Furthermore, Walach appears to teach away from means for permitting, in the second pass phase, rejected product of the plurality of product to an output bin common and accessible to any of the feeding means, as recited in claim 21. As discussed above, during the second pass phase of Walach, the sorter is used to sort the P input groups into N new output groups, each of the N new output groups being associated with and fed by exactly one of the P input bins (col. 5, lines 61-62). Thus, Walach teaches away from an output bin that is common and accessible to any of the feeding means.

Dependent claims 2-14, 16-20, 22 and 23 in view of Walach

Applicants respectfully submit that claims 2-14, 16-20, 22 and 23 depend from an allowable independent claim, and are allowable by virtue of the allowability of the respective independent claim.

Furthermore, Applicants submit that Walach does not teach or suggest many of the features of the dependent claims. For example, Walach does not teach or suggest that rejected product is based on at least one of misreading or non-reading of a code associated with the rejected product, as recited in claims 2 and 16. To the contrary, Walach makes no mention whatsoever of rejected product. Therefore, it is impossible for Walach to teach or suggest criteria for rejecting product, such as misreading or non-reading of a code.

Additionally, Walach does not teach or suggest a commonly accessible output bin, as recited in claims 17 and 19. Instead, as discussed above, Walach explicitly teaches away from a commonly accessible output bin during the second pass phase.

Accordingly, Applicants respectfully request that the rejection over claims 1-23 in view of Walach be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

Respectfully submitted,
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A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', written over a horizontal line.

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